

CLAIMS

1. A method of storing a video stream on a storage medium, comprising:
 - separating each group of pictures (GOP) of a first compressed video stream into a first plurality of packets;
 - writing a first packet from the first plurality of packets to the storage medium;
 - separating each GOP of a second compressed video stream into a second plurality of packets; and
 - writing a first packet from the second plurality of packets to the storage medium.
2. The method of Claim 1, wherein the first packet from the first plurality of packets is written to the storage medium prior to writing the first packet from the second plurality of packets to the storage medium.
3. The method of Claim 2, further comprising writing a second packet from the first plurality of packets to the storage medium.
4. The method of Claim 3, wherein the second packet from the first plurality of packets is written to the storage medium prior to writing the first packet from the second plurality of packets.
5. The method of Claim 3, wherein the first packet from the second plurality of packets is written to the storage medium prior to writing the second packet from the first plurality of packets to the storage medium.

6. The method of Claim 5, further comprising writing a second packet from the second plurality of packets to the storage medium.

7. The method of Claim 6, wherein the second packet from the second plurality of packets is written to the storage medium prior to writing the second packet from the first plurality of packets.

8. The method of Claim 1, wherein the first plurality of packets comprises less than twenty-five packets.

9. The method of Claim 1, wherein the first plurality of packets comprises eight packets.

10. A system for writing video data on a storage medium, comprising:

a packetizer for disassembling a first group of pictures (GOP) of a first video track into a first plurality of packets and a second GOP of a second video track into a second plurality of packets;

a video interleaver for combining packets from the first plurality of packets with packets from the second plurality of packets in an interleaved fashion into an interleaved video stream; and

a disk writer for storing the interleaved video stream onto the storage medium.

11. The system of Claim 10, wherein the storage medium is a digital video disk (DVD).

12. The system of Claim 10, wherein the video interleaver incorporates a first number of packets from the first plurality of packets prior to incorporating a second number of packets from the second plurality of packets.

13. The system of Claim 12, wherein the first number is two.

14. The system of Claim 13, wherein the second number is three.

15. A storage medium, comprising:

a first packet from a first compressed video stream, the first compressed video stream including a first group of pictures (GOP) and a second GOP, wherein a size of the first packet is less than a size of the first GOP; and

a first packet from a second compressed video stream stored subsequent to the first packet from the first compressed video stream, the second compressed video stream including a third GOP, wherein a size of the first packet from the second compressed video stream is less than a size of the third GOP.

16. The storage medium of Claim 15, further comprising

a second packet from the first compressed video stream stored subsequent to the first packet from the second compressed video stream, wherein a size of the second packet from the first compressed video stream is less than a size of the second GOP.

17. The storage medium of Claim 15, wherein the first packet from the first compressed video stream is located before the first packet from the second compressed video stream on the storage medium.

18. The storage medium of Claim 17, wherein the second packet from the first compressed video stream is located before the first packet from the second compressed video stream on the storage medium.

19. The storage medium of Claim 17, wherein the packet from the second compressed video stream is located before the second packet from the first compressed video stream on the storage medium.

20. The storage medium of Claim 16, wherein the first packet from the first compressed video stream has the same size as the second packet from the first compressed video stream.

21. The storage medium of Claim 15, wherein the first packet from the first compressed video stream has the same size as the first packet from the second compressed video stream.

22. A method of reading a video stream from a video source, comprising:

reading a first video data element of a first video track from the video stream, the first video track having a first group of pictures (GOP); and

reading a second video data element of a second video track stored subsequent to the first packet of the first video track from the video stream, the second video track having a second GOP.

23. The method of Claim 22, wherein the first video data element is an interleaved video unit (ILVU) including at least the first GOP of the first video track.

24. The method of Claim 22, wherein the first video data element is a packet having a size less than a size of the first GOP of the first video track.

25. The method of Claim 22, wherein first video data element and the second video data element are read into a read buffer.

26. The method of Claim 25, wherein the read buffer is locked at the first video data element such that the first video data element and the second video data element are stored in the read buffer and such that the read buffer can not overwrite the first video data element and the second video data element until the read buffer is unlocked.

27. The method of Claim 25, wherein a location of an I-frame within the first GOP is identified by a first identifier.

28. The method of Claim 27, wherein a decoder reading the read buffer accesses the first GOP by accessing a location of the first identifier.

29. The method of Claim 27, wherein a location of a P-frame within the first GOP is identified by a second identifier.

30. The method of Claim 29, wherein a decoder reading the read buffer avoids accessing a B-frame of the first GOP by accessing only a location of the first identifier and a location of the second identifier.

31. The method of Claim 22, wherein a decoder accesses the first video data element of the first video track.

32. The method of claim 31, wherein the decoder switches to access the second video data element of the second video track.

33. The method of Claim 32, wherein the decoder skips a B-frame of the second video data element.

34. The method of Claim 32, wherein the decoder sends a decoded frame of the second video data element to a frame buffer.

35. The method of Claim 22, wherein the video source is a digital video disk (DVD).

36. The method of Claim 22, wherein the video source is a camera system.

37. The method of Claim 36, wherein the camera system includes a plurality of cameras.